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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,057	12/09/2003	Hideo Hoshuyama	117994	2951

25944 7590 11/20/2007

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EXAMINER	
TSAI, TSUNG YIN	
ART UNIT	**PAPER NUMBER**
2624	

MAIL DATE	DELIVERY MODE
11/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/730,057	HOSHUYAMA, HIDEO	
	Examiner	Art Unit	
	Tsung-Yin Tsai	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/29/2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,7-9,11 and 14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,7-9,11 and 14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 October 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/18/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAIL ACTION

Acknowledge of amendment received on 10/29/2007 and made of record.

Acknowledge of amendment to claims 1, 8-9 and 11.

Acknowledge of canceling claims 3, 5-6, 10 and 12-13.

Acknowledge of new claim 14.

Acknowledge of IDS filed on 10/18/2007.

Response to Arguments

Applicant's argument – Amended claims 8, 9 and 11 as requested by Examiner to overcome 35 USC 101 rejection.

Examiner's response – Rejection for claims 8, 9 and 11 is withdrawn.

Applicant's argument – Page 7, Kasson fails to disclose this feature because Kasson fails to disclose a color-space determining part, as called for in claim 1.

Examiner's response – Kasson teaches a color-space determining part (figure 1 discloses the varies kind of color space that is within the viewing of the user, figure 4 discloses where the image data is processing input image data to color space that is within human vision response).

Applicant's argument – Page 7, Kasson fails to disclose this feature because it fails to output the information on the color space as information corresponding to the converted image data, as well as to output the converted image data.

Examiner's response – Kasson teaches to output the information (figure 2 disclose outputting the data from color space into chroma magnitude and hue angle information) on the color space (figure 1 discloses the varies of color space, figure 4 discloses where the processing of the image data in color space correspond to that of human vision response) as information corresponding (figure 1 discloses the varies of color space, figure 4 discloses where the processing of the image data/information in color space correspond to that of human vision response) to the converted image data (figure 2 disclose outputting the data from color space into chroma magnitude and hue angle information, figure 5 discloses where such information is further process with low-pass filter , weighting and chrominance correction resulting to combine color plane/converted image data), as well as to output the converted image data (figure 5 part 48 discloses the outputting of the converted image data).

Applicant's argument – Page 7, Kasson fails to disclose a color-space conversion part that transmits, not only the converted image data, but also information on the determined color-space that corresponds to the converted image data.

Examiner's response – Kasson teaches a color-space conversion (figure 1, figure 3, figure 4, figure 7C, 130 figure 8, figure 9, column 1 lines 45-50, column 6

lines 3-30. Color-space conversation part is seen as the display format of the image data. Formats such as NTSC, RBG for display or other display like hard-copy display in format such as CMY for printers) part that transmits, not only the converted image data (figure 2 disclose outputting the data from color space into chroma magnitude and hue angle information, figure 5 discloses where such information is further process with low-pass filter , weighting and chrominance correction resulting to combine color plane/converted image data), but also information (figure 1 discloses the varies of color space, figure 4 discloses where the processing of the image data/information in color space correspond to that of human vision response) on the determined color-space (figure 1 discloses the varies of color space, figure 4 discloses where the processing of the image data in color space correspond to that of human vision response) that corresponds to the converted image data (figure 2 disclose outputting the data from color space into chroma magnitude and hue angle information, figure 5 discloses where such information is further process with low-pass filter , weighting and chrominance correction resulting to combine color plane/converted image data).

Applicant's argument – Page 8, Hung alone fails to disclose the image processing device of claim 1 (i.e., the color- gamut determining part, the color-space determining part and the color-space conversion part).

Examiner's response – The combination of Kasson and Hung teaches all the limitation of claim 7 and 14.

Applicant's argument – Page 8, this process does not determine a color space that the created image data can then be rendered in, as called for in claim 7.

Examiner's response – The combination of Kasson and Hung teaches all the limitation of claim 7 and 14.

Claim Rejections – 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being unpatentable over Kasson (US Patent Number 5,450,216).

Kasson teaches regarding image processing device (figure 8) comprising:

(1) Regarding claims 1 and 8:

a color-gamut determining part for determining a color gamut as a range of color distribution from input image data (figure 1, figure 3, figure 4, column 1 lines 30-38, column 1 lines 55-67 to column 2 lines 1-15, column 7 lines 34-43, Figures show the gamut mapping that finds the range of the color gamut of the image) **data input (**figure 8 discloses input data to the I/O buss so that other part of the system can process the data**)** **from an input part (**figure 8 part 118 discloses a removable media

interface where the data can be inputted into the system for system to process);

a color-space determining part for determining a color space substantially containing the color gamut determined by said color-gamut determining part (figure 1, figure 3, figure 4, column 1 lines 45-67 to column 2 lines 1-15, column 6 lines 3-13, column 7 lines 34-64. Gamut mapping determines the color space that it will encompass. With such information it will determine what format the data image will be encompass and format that it will be display in.); and

a color-space conversion part for converting the input image data into image data which is rendered in the determined color space (figure 1, figure 3, figure 4, figure 7C, 130 figure 8, figure 9, column 1 lines 45-50, column 6 lines 3-30. Color-space conversation part is seen as the display format of the image data. Formats such as NTSC, RBG for display or other display like hard-copy display in format such as CMY for printers) **and for transmitting () a converted image data and information (**figure 1 discloses the color space mapping of the image data, figure 2 discloses the data is process and converted to data such as chroma magnitude and hue angle, figure 5 disclose the computing of the image data and converting to low-pass and weighted values, all these are seen as converting image data and information**) on the color space (**figure 1 discloses color space graphing of the image data**) determined by said color-space determining part (**figure 1, figure 3, figure 4, column 1 lines

45-67 to column 2 lines 1-15, column 6 lines 3-13, column 7 lines 34-64. Gamut mapping determines the color space that it will encompass. With such information it will determine what format the data image will be encompass and format that it will be display in**) as information (**figure 1 discloses the color space mapping of the image data, figure 2 discloses the data is process and converted to data such as chroma magnitude and hue angle, figure 5 disclose the computing of the image data and converting to low-pass and weighted values, all these are seen as converting image data and information**) corresponding to the converted image data (**figure 1 discloses the color space mapping of the image data, figure 2 discloses the data is process and converted to data such as chroma magnitude and hue angle, figure 5 disclose the computing of the image data and converting to low-pass and weighted values, all these are seen as converting image data and information**).**

Claim Rejections – 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasson (US Patent Number 5,450,216) in view of Matsumoto et al (US Patent Number 5,606,632).

(1) Regarding claims 2 and 9:

Kasson teaches regarding color-gamut determining part (figure 1, figure 3, figure 4, column 1 lines 45-67 to column 2 lines 1-15, column 6 lines 3-13, column 7 lines 34-64. Gamut mapping determines the color space that it will encompass. With such information it will determine what format the data image will be encompass and format that it will be display in) and calculates a hue (column 4 lines 23-39) and a chroma (column 4 lines 23-39), determine a maximum chroma (column 4 lines 23-39) for each of hues calculated; and higher than that of the input image data (56 figure 7A, 56 figure 7B, 56 figure 7C, figure 9, column 1 lines 15-20) in all of the hues calculated by said color-gamut determining part (figure 1, figure 3, figure 4, column 1 lines 45-67 to column 2 lines 1-15, column 6 lines 3-13, column 7 lines 34-64. Gamut mapping determines the color space that it will encompass. With such information it will determine what format the data image will be encompass and format that it will be display in.).

Kasson does not teach regarding plurality of image regions.

However, Matsumoto et al teaches regarding plurality of image regions (figure 6-7, s4 figure 8, figure 9-11, column 6 lines 16-38).

It would have been obvious to one skill in the art at the time of the invention to employ Matsumoto et al to Kasson regarding sectioning the original image to plurality of image regions, such that the processing speed is extremely increased for reducing the size of the original color image (column 8 lines 32-35).

6. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasson (US Patent Number 5,450,216) in view of Mizumoto (USPG-PUB 2002/0060688 A1, IDS.)

(1) Regarding claims 4 and 11:

Kasson teaches regarding said color-gamut determining part (figure 1, figure 3, figure 4, column 1 lines 45-67 to column 2 lines 1-15, column 6 lines 3-13, column 7 lines 34-64. Gamut mapping determines the color space that it will encompass. With such information it will determine what format the data image will be encompass and format that it will be display in) maps the input image data (56 figure 7A, 56 figure 7B, 56 figure 7C, figure 9, column 1 lines 15-20) and more of the color gamut of the input image data (column 7 lines 34-64).

Kasson does not teach regarding putting the input image data on a chromaticity diagram.

However, Mizumoto teaches regarding chromaticity diagram (figures 1-23, page 1 paragraphs 0007, 0009, 0010).

It would have been obvious to one skill in the art at the time of the invention to employ Mizumoto teachings to Kasson regarding chromaticity diagram, such that it will enable to increase the performance of the color reproduction in the imaging processing and the image outputting process (page 1 paragraph 0012), which therefor within display the image signal with higher fidelity (page 1 paragraph 0014).

7. Claim 7 and 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasson (US Patent Number 5,450,216) in view of Hung (US Patent Number 6,075,563).

(1) Regarding claim 7:

Kasson teaches all the subject matter of claim 1.

Hung disclose a electronic camera comprising:

An electronic camera comprising (title, abstract):

an image-capturing part (figure 1) for capturing an optical image (column 2 lines 20-30) formed with a shooting lens (12 figure 1, figure 5-7) to create image data (column 2 lines 20-30); and

the image processing device (title, abstract, figure 1) according to claim 1, for determining a range of color distribution (column 6 lines 23-65) of the created image data to determine a color space (column 7 lines 30-35), and

converting the created image data into image data which is rendered in the determined color space (column 6 lines 23-45, column 7

lines 30-35, column 10 lines 50-67. Determine color space to be display can be such as RBG, CMY, LMS as well as that of HDTV.).

It would have been obvious to one skill in the art at the time of the invention to employ Hung teachings to Kasson having a hardware system to carry out the method of claim 1 regarding color space processing.

The motivation to combine regarding having a hardware system to carry out the method of claim 1 such that the image data information can be converted into electronic signals by image elements for the method processing (column 2 lines 20-30).

(2) Regarding claim 14:

Kasson and Hung further teaches:

Hung teaches regarding imaging conditions (figure 1 part 23 discloses flicking/lighting conditions for image taking).

Kasson teaches regarding said color-space conversion part (figure 1, figure 3, figure 4, figure 7C, 130 figure 8, figure 9, column 1 lines 45-50, column 6 lines 3-30. Color-space conversation part is seen as the display format of the image data. Formats such as NTSC, RBG for display or other display like hard-copy display in format such as CMY for printers) performs a color correction (figure 5 part 46 discloses where image data is corrected) of imaging condition when converting the input image data (figure 5 part 32 discloses input of image data) into image data which is rendered in the determined color space (figure 5 disclose where the input date is image data, figure 1 and 2 discloses where the image data for the

input data is rendered in color space and information extracted for figure 5 processing).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cowan et al (US 2003/0063299 A1) disclose color calibration method and apparatus.

Gruzdev et al (US 20030012433 A1) disclose automatic saturation adjustment.

Ito et al (US Patent Number 6,437,792 B1) disclose image processing apparatus and method, color gamut conversion table creating apparatus and method, storage medium having image processing program recorded therein, and storage medium having recorded therein color gamut conversion table creating program.

Lipson et al (US Patent Number 5,963,670 A) disclose method and apparatus for classifying and identifying images.

Tsuruoka et al (US 20010016064 A1) disclose image processing apparatus.

Hatakenaka (US 6,453,072 B1) disclose image coding system.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tsung-Yin Tsai whose telephone number is (571) 270-1671. The examiner can normally be reached on Monday - Friday 8 am - 5 pm ESP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571)272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tsung-Yin Tsai
November 15, 2007

JINGGE WU
SUPERVISORY PATENT EXAMINER